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Forage News

Keeping Forage-Livestock producers in Kentucky informed
Dr. S. Ray Smith and Krista Lea, MS.~ Editors

June 2019



Celebrate **National Forage Week**
www.AFGC.org June 16-22, 2019

Buttercup Risk to Cattle and Horses

As many of you have observed, there has been a profusion of yellow buttercup in pastures this spring. Buttercup grows in overgrazed pastures and since cattle and horses generally avoid it then it can proliferate. So we asked Dr. Cindy Gaskill, toxicologist at UK Vet Diagnostic Lab (VDL), if producers should be concerned about livestock toxicity. This was part of her answer: First, there are so many different species of *Ranunculus* (scientific genus of buttercup), so it is hard to generalize. Some are definitely more toxic than other species. Typical, toxicity issues are upset stomach and irritation throughout the GI tract, but depending on the species of buttercup, effects can be severe and even fatal. As with all pasture plants and weeds you can bring a plant sample to your local extension office for identification.

At UKVDL, buttercups are not high on the list of things causing problems in either cattle or horses. As long as the animals have plenty of other forages to eat, they are unlikely to eat much if any of the buttercups, and so are unlikely to have major problems. A problem could occur if the pasture is extremely overgrazed, and the animals have nothing else to eat, then they may be forced to eat too much buttercup and end up with problems from it. And depending on the species of buttercup, effects in that case could be severe and even fatal. From a quick review of UKVDL records over the last 13 years, there have been no cases of livestock brought to the lab that have died from ingesting buttercup and there have been no calls of clinical cases where buttercup ingestion was the most likely cause of the problem. It is important to note that horses may be more susceptible to the GI irritant effects, and it is possible that some colics and

diarrheas have been unknowingly caused by buttercups.

From what has been written about buttercups in hay, it is unlikely that dried buttercups in hay retain the toxic component ranunculin, so it is unlikely to cause problems in hay unless there is a large amount of buttercup. How much is too much is hard to know, and will depend on species of buttercup, etc... ~ Dr. Cynthia Gaskill, UK VDL Toxicologist

Managing Pastures this Summer

Setting a sustainable stocking rate. Setting the proper stocking rate, defined as animals per acre per year, is a primary determinant in grazing system success. A stocking rate set too high will result in the degradation of the entire grassland ecosystem. A stocking rate that is set too low will result in wasted forage and decreased profitability. In addition, stocking rate also impacts the amount of conserved forage that will be needed. A stocking rate set too high will result in less grazing and more hay feeding. Stocking rate depends on many factors such as forage species, soil type, soil fertility level, and grazing management. In general, supplying each cow-calf unit with 2 to 3 acres of grazable pasture is a good place to start. In most cases it is better to start with a lighter stocking rate that can be gradually increased as soil fertility increases and grazing management improves.

Grazing management. Controlled grazing or rotational stocking is a management practice that allows producers to determine how closely pastures are grazed and how long they are rested between grazing events. Leaving residual leaf area and resting pastures between grazing events allows pastures to re-grow quicker and produce up to a third more forage in a given grazing

Forage Timely Tips: June

- ✓ Continue hay harvests. Minimize storage losses by storing hay under cover.
- ✓ Clip pastures for weeds and seedheads as needed.
- ✓ Slow rotation allowing for a longer recovery period.
- ✓ Use portable fencing to decrease paddock size and increase paddock number.
- ✓ Do NOT graze below the minimum desired residual height.
- ✓ Crabgrass, a warm-season annual grass, can provide high quality summer grazing. Remember crabgrass needs some annual soil disturbance to keep coming back.

season (Sollenberger, et al., 2012). Some forage species are better adapted to close and frequent grazing than other.

Soil fertility. The soil fertility can have a profound impact on both the productivity and botanical composition of pastures. When fertility is low, improved forage species like tall fescue and orchardgrass and red and white clover become less productive and weed species that are better adapted to lower fertility fill in the gaps. Fertilizer and lime applications should ALWAYS be based on a recent soil test. If funds are limited, apply lime if needed. Lime not only reduces soil acidity, but also makes nutrients in the soil more available to plants.

Hay and silage remove large quantities of nutrients. In contrast to grazing, making hay or silage removes large quantities of nutrients. These nutrients must be replaced to maintain soil fertility, and stand health and productivity. Each ton of hay that is removed from a field takes with it approximately 15 lb of phosphate and 50 lb potash. In a good year a tall fescue-clover mix may yield 4 tons per acre and remove 60 lb phosphate and 200 lb of potash.

Successful pasture management requires an integrated approach that involves the soil, plant, and animal. This means we need to select well adapted forage species and manage them in a manner that creates a healthy and vigorous sod that excludes weeds from our pastures. When we combine this with clipping and the judicious use of herbicides, we will have a winning combination! ~ Dr. Chris Teutsch. See the full article in the upcoming June issue of Cow Country News.

2019 Western Kentucky Summer Forage Tour: Resuscitating a Rundown Farm

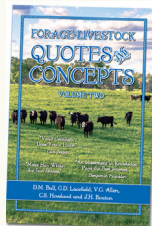
Join us August 6th at D and D Farm in Horse Ranch, KY for the annual Kentucky Forage and Grassland Council's annual field day. Owners Bud and Lakayah Daugherty will be showcasing their success in improving a neglected farm. Event is free and, if rained out, will run Aug. 8.

***The Wonder Grass: The Story of Tall Fescue in the United States* now available.**

Authored by D.M. Ball, G.D. Lacefield and C.S. Hoveland, this new book explores the story of Tall Fescue in the US and in the world. Get your copy today at <http://oregontallfescue.org/wondergrass/>.

Quote of the Month: Leaving new bales in the field is like leaving dirty dishes in the sink. Sure, it's convenient at the time, but in both situations, after a while they begin to stink ~ Lauren Peterson

Hay will never be in a better nutritional state than the moment it is cut. It simply deteriorates from that point. The only thing you can then control is getting the hay baled, out of the field and into good storage conditions as rapidly as possible. However, it is important to be certain that hay reaches a safe moisture level and internal temperature before moving it to storage to avoid spontaneous combustion. Otherwise, fire can occur in hay stored outside or in a barn. Forage-Livestock Quotes and Concepts, vol. 2 is available online at foragequotebook.com.



UK Weed Science to Host a Pair of Field Days at UKREC in Princeton

The University of Kentucky Weed Science Program will be hosting two field days at the UK Research and Education Center (UKREC) in Princeton, Kentucky in 2019. The Pest Management Field Day will be held on July 2, 2019 and the Spray Clinic will be held on July 18, 2019.

Pest Management Field Day

The Pest Management Field Day will be a half day event starting at 8:30 am with sign-in beginning at 8:00 AM. The field day will include field talks and plot tours covering weed science research and corn disease research. The event will culminate with lunch and optional informal self-guided viewing of weed science and corn disease research plots.

Those wishing to participate in the Pest Management Field day can pre-register online or by calling (270)-365-7541 ext. 0. There is no cost to attend the Pest Management Field Day. The Pest Management Field Day has been approved for CCA CEU credits and PAT credits have been requested.

KATS Spray Clinic

The Spray Clinic will also be held at the UKREC in Princeton as part of the Kentucky Agriculture Training School (KATS). The event will occur on July 18 from 8:30 AM to 4:00 PM with sign-in beginning at 8:00 AM. The clinic will include spray technology overviews, spray equipment maintenance, herbicide application considerations, fungicide application considerations, and drift management. Speakers at the event will include Dr. Tim Stombaugh, Dr. Kiersten Wise, and Dr. Travis Legleiter of the University of Kentucky.

Pre-registration is required for this event. The cost to attend the Spray Clinic is \$105 and includes lunch and refreshments. The Spray Clinic has been approved for CCA CEU credits and PAT credits have been requested. Any questions about either field day can be directed to Dr. Travis Legleiter (Travis.Legleiter@uky.edu). ~ KPN

Pub. of the Month: Foxtail Millet (AGR-233)

Foxtail millet (German millet) is a fine-stemmed summer annual used mainly for emergency hay or pasture for cattle. It is the lowest yielding of the summer annual grasses since it will not regrow after cutting. It can also be used as a smoother crop when transitioning to other perennial forage crops. Foxtail millet is also commonly used for wildlife plantings to produce food and cover for doves, quail, and other birds. Go to the UK Forage Website to download the entire publication.

Upcoming Events (see website for details and online registration)

JUN 16-22 - National Forage Week
AUG 6 - KFGC Field Day, Ohio County, KY
SEPT 5 - Equine Field Day, Princeton, KY
SEPT 10-11 - Fall Grazing School, Versailles, KY
SEPT 26 - Beef Bash, Princeton, KY
OCT 29 - Heart of America Grazing Conf., Covington, KY
OCT 31 - Western KY Grazing Conf., Hopkinsville, KY
JAN 5 - AFGC Annual Conference, Greenville, SC

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see blue.

Grass Decline? Check Your Cutting Height

Sometimes new machinery technologies solve one problem but create a new one. That might be the case when it comes to disc mowers, which have largely replaced sickle bar mowers on most haymaking operations.

"One of the issues that has developed with disc mowers is the tendency for producers to cut their fields very short," says Gary Bates, director of the University of Tennessee Beef and Forage Center (UT-BFC). "It isn't unusual to see a 1- or 2-inch stubble height after a producer has cut hay with one of these (disc-type) mowers," he adds. Bates points to numerous research studies that show stubble height has a direct influence on the persistence of cool-season grasses such as tall fescue or orchardgrass.

"The recommendation from these studies is to leave at least three inches of stubble. Cutting below that height will reduce the persistence of the stand, shortening its productive life." Many cool-season grasses store carbohydrates in the lower 2 inches of the stem. If cut below this height, especially on a consistent basis, regrowth is impaired. In addition to removing carbohydrate reserves, a low-cutting height also removes more photosynthetic leaf area. This further impedes the plant's ability to regrow quickly. Over time, stand persistence and productivity will suffer.

"I have been asked several times why tall fescue and orchardgrass fields don't presently last as long as they did in the past," Bates comments. "Part of that could be simply due to our memories. Things often seemed better in the past compared to current conditions. But a lot of it is due to how close a field is cut during hay harvest," he adds.

Bates says that one of the best checks a producer can make is that of residual cutting height. He suggests no less than a 3-inch stubble for grasses such as tall fescue and orchardgrass. For taller grasses like sorghum-sudangrass and native warm-season species, leave 6 to 8 inches of residual.

There really are few downsides to a higher grass cutting height. More low-quality stem is left in the field, regrowth is hastened, stand health and long-term productivity are preserved, and the risk for forage soil contamination is reduced. ~ Hay and Forage Grower, May 2019

We're Producing and Feeding Less Hay

The dynamics of the hay industry have changed. Whether it can just be attributed to a natural cycle or a permanent new normal is yet to be determined. One year ago, USDA reported that year-over-year May 1 hay stocks had declined by 36 percent, which amounted to 8.7 million tons. This past December, year-over-year hay stocks also dropped for the second year in a row. Last week, USDA's Crop Production report pegged May 1 dry hay stocks at 14.9 million tons, 3 percent (442,000 tons) below one year ago. That's not the same drop in magnitude as last year, but it's also not a rebound. At 14.9 million tons, May 1 hay stocks were at their lowest point since 2013 when inventories tallied 14.2 million tons. Prior to that, you have to go all the way back to 1950 to find a year with lower spring stocks (14.6 million tons).

Some of the largest hay-producing states had year-over-year May 1 stock reductions much greater than the U.S. average. Falling into this group were: Colorado (down 57%), Arkansas (down 51%), Minnesota (down 50%), Oregon (down 47%), Idaho (down 39%), Mississippi (down 39%), Pennsylvania (down 34%), Wisconsin, Michigan, and Ohio were each down 31%. Not all states experienced inventory reductions. Some had large gains after experiencing severe reductions in May 2018 following less than desirable growing conditions the previous year. Included in the states that had large year-over-year inventory boosts were: Montana (up 120%), New Mexico (up 110%), California (up 80%), Nebraska (up 53%), Utah (up 40%), North Dakota (up 39%), Texas (up 34%).

What has made the difference?

2011 and 2012 years were characterized by severe drought, with the 2012 being nearly nationwide. This caused hay inventories to deteriorate and prices to soar toward record levels. Between 2009 and 2014, beef cow numbers declined by about 3 million head. We might point to that as a reason for the reduction in winter hay feeding except that since 2014 the beef cow herd has rebounded to 31.8 million, a number similar to one we had in 2009.

Regardless of the reason, there has been a significant decline in U.S. hay production in the past 20 years. From 2000 to 2010, the average annual dry hay production was 150.2 million tons. Since 2011, hay production has averaged 130.3 million tons per year. Hay prices during this time have remained relatively strong.

It's probably safe to assume that many beef producers are figuring out ways to feed less dry hay to get them through winter. More and more, we're seeing annual forages grazed into December or later. Also, it has been well documented that dairies in the West are feeding less alfalfa hay in their cow rations year-round. A number of producers have converted from dry hay to baleage. This directly impacts hay production and inventory figures but there is no data to document exactly what percentage of production has been recently converted from dry hay to baleage.

Whatever the reasons, USDA data is telling us that we're producing and feeding less dry hay; both trends began in 2011, and whether this situation is cyclic or the new normal remains to be seen. Go to the Hay and Forage Grower website for the full article. ~ Mike Rankin, Hay and Forage Grower, May 2019

